

SUSTAINABLE DEVELOPMENT GOALS AND EDUCATION FOR SUSTAINABILITY: ANALYSIS OF THE SUSTAINABILITY CONCEPTIONS OF BUSINESS MANAGEMENT STUDENTS IN A PUBLIC HIGHER EDUCATION INSTITUTION

OBJETIVOS DO DESENVOLVIMENTO SUSTENTÁVEL E EDUCAÇÃO PARA A SUSTENTABILIDADE: ANÁLISE DAS CONCEPÇÕES DE SUSTENTABILIDADE DE ESTUDANTES DE ADMINISTRAÇÃO EM UMA INSTITUIÇÃO SUPERIOR PÚBLICA

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**ABSTRACT**

*This research aimed to identify, through the analysis of the sustainability conceptions of Business Management students from UFPB (Federal University of Paraíba), ways in which sustainability can be incorporated into their education. In methodological terms, a phenomenographic research was conducted, an approach in which the aim is to empirically investigate the way through which people experience, comprehend and attribute meaning to a phenomenon in the world around them. Its application on UFPB took into consideration the relevance of studying education for sustainability in a university campus that is inserted in an Atlantic Forest environment. Three different conceptions of sustainability were identified: opportunity, resources and sense of collectivity, from most superficial to most deep, respectively. Research showed that most students interviewed conceives sustainability in terms of resources, making it therefore impossible to identify an expansion resulting from the formation process of these students. Five directives were appointed by students in order to incorporate sustainability in the formation of these future administrators: the creation of a specific subject focused on sustainability; the approaching of sustainability in an interdisciplinary way; practicing as a way to contribute to theory previously learned; the promoting of scientific initiation projects that deal with said topic; and the hosting of institutional campaigns of awareness on sustainability.*

**Keywords:** Sustainable Development Goals. Education for Sustainability. Business Management Education.

**RESUMO**

Esta pesquisa teve por objetivo identificar, por meio da análise das concepções de sustentabilidade dos estudantes do curso de Administração da UFPB, maneiras de se incorporar a sustentabilidade à sua formação. Em termos metodológicos, realizou-se uma pesquisa fenomenográfica, abordagem cujo objetivo é investigar empiricamente como as pessoas experienciam, compreendem e atribuem significado a um fenômeno no mundo em torno deles. Sua aplicação na UFPB levou em conta a relevância de se estudar educação para a sustentabilidade em um campus universitário inserido em um ambiente de Mata Atlântica. Foram identificadas três concepções de sustentabilidade: oportunidade, recursos e senso de coletividade, da mais superficial a

mais profunda, respectivamente. A pesquisa revelou que a maior parte dos estudantes entrevistados concebe sustentabilidade em termos de recursos, não sendo possível identificar um aprofundamento resultante do processo de formação desses estudantes. Cinco direcionamentos foram apontados pelos alunos para a incorporação da sustentabilidade na formação do administrador: a criação de uma disciplina específica focada na sustentabilidade; a abordagem da sustentabilidade de forma interdisciplinar; a prática como aporte à teoria; o fomento a projetos de iniciação científica que tratem sobre essa temática; e a realização de campanhas institucionais de conscientização sobre a sustentabilidade.

**Palavras-chave:** Objetivos do Desenvolvimento Sustentável. Educação para a Sustentabilidade. Educação em Administração.

## INTRODUCTION

The sustainability discourse has been intensified along the latest decades, bringing to light a series of relevant concerns to the debate on questions related to it (SARTORI; LATRÔNICO; CAMPOS, 2014). In spite of the importance of promoting this debate in the matter of ideas, this same intensity has not been true as far as actions go. According to Brunstein, Godoy and Silva (2014), both in regard to individual actions as in regard to those that involve social, political and economical matters, from government and organizational, the anchoring idea of sustainable development is, time and again, from one side, welcomed and widespread, and, from another, rebuked, on the same proportion.

The Education for Sustainability (EfS) is introduced in light of this context, as a way to transform the discourse into practice and to highlight how relevant is the role that education plays on constructing a sustainable society, aware of the way today's actions impact the future. It is, therefore, a fundamental strategy to capture sustainable development and sustainability (GRISWOLD, 2017; DUBEY, GUNASEKARAN, DESHPANDE, 2017). Seen as an instrument to anchor the changes that are necessary in the contemporary world, EfS helps people and communities to critically examine technologies, economic systems, cultural systems of reproduction, law and politics, ideas and ideologies employed nowadays, so they can coexist with nature, also helping them to consider and act on other viable alternatives (HUCKLE, 2014).

The Sustainable Development Goals (SDG), set in 2015 on occasion of the United Nations General Assembly for Sustainable Development, propose 17 goals and 169 targets, seeking to *“realize the human rights of all and to achieve gender equality and the empowerment of all women and girls. They (the SDG Agenda) are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental.”* Our study is aligned, mainly, to SDG4 – Quality Education. The 2030 Agenda for Sustainable Development, plan of action that created the SDG, which comes after and is an improvement on the Millennium Development Goals (MDG),

also proposed by the United Nations (UN), in 2000, with the support of nations who were committed, through eight goals to be achieved by 2015, to build a new global partnership in order to reduce extreme poverty (UN, 2015). Although the Business Management Education is primarily focused on the administration of businesses, it has been possible to see an increase on the number of Business Management programs that, “*Over the last few years, (...) have aimed to train managers in different forms of organizations—such as cooperatives and social economy organizations and with motives other than profit beyond the “typical” business model.*” The agenda of events that have affected the world economy on the latest decades, such as the irregularity on the market that happened between 2007 - 2009, pointed out this new innovative model and its motivations, causing, in parallel, a constant flow of circumstantial questioning in favor of sustainability in business practices (RAUFFLET, 2014; BEVAN, 2014).

Furthermore, considering that in these new times the reputation of organizations is as or even more important than its financial capital, – and, therefore, the ability to get ahead the social demands that its activities entail may differentiate a business that stays on market and one that disappears - we can understand that debating sustainability while studying Business Management is a pressing need, in addition to being an opportunity both for the future professionals as for Higher Education Institutions, for whom it may result in significant gain, both academically and non-academically (JACOBI; BEDUSCHI FILHO, 2014).

It is expected, then, that “*the tertiary education sector, as ‘conscience and critic’ of society (...) take the leadership role in the discourse about business and sustainability*”, educating managers who are prepared to answer to the demands of the world; who are capable of thinking and acting aiming to reach a sustainable business – as seen from a perspective that transcends the economic issues that it involves – and that, in consequence, contribute to the building of a sustainable world. On the role that higher education plays so that the “conditions to a sustainable world are reached”, Raufflet is categorical: “*Management Education is part of the sustainability problem; it could become part of the solution as well*”. Brunstein’s study *et al.* (2019), also

demonstrates that, by evaluating the levels of reflection and the transforming learning experiences noticed by students of a Business Management course, in subjects on the financial field.

Literature about EfS themes shows that, despite what happens in formal/traditional education, sustainable education “*occurs in life situations, happens through life and has as its main author the learner himself*” (CARVALHO; BRUNSTEIN; GODOY, 2014, p. 85). In this context, it would be a mistake to suggest that student’s access to knowledge and events related to sustainability happens only inside formal spaces of learning. The actors involved in the teaching-learning process develop their opinions, attitudes and approaches on sustainability through family interactions, social groups, school activities, means of communication, social network etc. In that way, students express different understandings on sustainability, which may be related to their private lives or be a result of their academic life (REID; PETOCZ; TAYLOR, 2011) or still a sum of both.

In that way, worrying about the insertion of sustainability in the process of forming students requires more than just analyzing ways of bringing this theme to the referred context. Besides that, it is necessary to study the “inserted”, meaning those who are to receive knowledge about sustainability, and the way through which they understand and conceive it. The fact is that, along their formation process, the students from the Business Management course are presented to several different areas. Thusly, it is wise to question the existence of a variation of sustainability conceptions among these students as they advance through these areas towards graduation, which may give us an indication of what this course is doing to them. In cases when there isn’t an institutionalized action towards educating students for sustainability, this look may facilitate the development of an adequate strategy to make this insertion; in cases in which some action of this type occurs, that would help evaluating the efficiency of the events developed and studying ways to make them better. That is the importance of this research, which has its main goal to identify, through the analysis of the conceptions that Business Management students from UFPB (Federal University of Paraíba) have on sustainability, ways in which sustainability can be incorporated into their studies.

In methodological terms, this work has done a phenomenographic research. This choice has taken into consideration the fact that it is a qualitative and descriptive approach in which the goal is to investigate, empirically, how people experience, understand and attribute meaning to a phenomenon – sustainability – that is around them. Besides that, the research was applied to students of the Business Management course on Campus I from UFPB (Federal University of Paraíba). It is important to stress that there are elements, in this study environment, which make the education context different for these students in relation to students of other institutions, especially when in relation to sustainability. Located in João Pessoa city, this campus is inserted in an Atlantic Forest environment, having approximately 30% of its area made of forest fragments, which reflects on the existence of a significant number of fauna and flora specimens which the entire academic community can get to know for as long as they study in said institution.

The Education for Sustainability is, therefore, built in the day to day life of each individual in society and must consider, in addition to the contributions brought during their formal education process, the personal and everyday experiences that contributed to the forming of their sustainability conceptions. It is from that perspective that this work is outlined, seeking to answer the following research question: how, taking into consideration the own experience of Business Management students from UFPB, can sustainability be incorporated to their studies?

Next, the theoretical reference brings the main writings found in the literature related to this research's theme, on the topic "Sustainable Development Goals, Education for Sustainability and Business Management Education". Then follows a contextualization of the environment where the study took place (UFPB), in addition to a description of the methodological procedures adopted for the development of this investigation. Finally, there will be a description of the presentation and analysis of the results, a discussion on the education for sustainability and business management education directing to the SDGs e, lastly, our final considerations and recommendations.

## SUSTAINABLE DEVELOPMENT GOALS, EDUCATION FOR SUSTAINABILITY AND BUSINESS MANAGEMENT EDUCATION

The Sustainable Development Goals (SDG) present a challenge to the fulfillment of the Agenda 2030, an agreement adopted by all United Nations Member States and with different themes. Integrated and indivisible, the SDGs “*balance the three dimensions of sustainable development: the economic, social and environmental*”. The SDGs can be achieved through partnerships between higher education institutions and their characters, as a means to give incentive to academic initiatives to reach sustainability.

The Education for Sustainability (EfS) is contemplated on SDG4 – quality education – which seeks to “*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*”, and, more specifically in its sub item 4.7, which wishes to ensure, by 2030, “*that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles (...)*”. The term education is still emphasized on three other goals: SDG3 – Good Health and well-being; SDG8 – Decent work and Economic growth; and SDG13 – Climate action.

One of the challenges of integrating sustainability with Business Management Education is related to a conceptual character and is resulted by the amount of existing definitions and interpretations around the terms “sustainable development” and “sustainability” (RAUFFLET, 2014). Sustainability has been more and more discussed among our society and a variety of meanings have been given to it since the term “sustainability” is indistinctively used by many different people, in the most varied social contexts (LIMA, 2003).

According to Holling (2000), sustainability and sustainable development represent a “logical partnership”: sustainability is the ability to create, test and maintain adaptive capacity; development is the process of creating, testing and maintaining opportunity; and sustainable development refers to the goal of promoting the adaptive capacities, creating opportunities. Jones, Selby and Sterling (2010) argue, therefore, that sustainability

represents a condition or a set of conditions so that the human and natural systems may continue indefinitely in a state of mutual well-being, security and survival.

In the context of EfS, sustainability is conceived from a holistic point of view. Because of its interdisciplinary nature, the term sustainability becomes plural when in face of the several perceptions of its concept (LANKOSKI, 2016) and yet, still, challenging is its shared construction (RATIUI; ANDERSON, 2015). According to Gadotti (2008, p. 75-76), *“sustainability is wider than sustainable development (...), sustainability is a dynamic balance with others and the environment, it is the harmony among differences”*. In this context, education for sustainability comes up as an alternate approach, which seeks to observe it – sustainability – to look over conceptual matters, converting itself in a way to transform these concepts in social practice.

This idea is reinforced by Huckle (2014) when, in contextualizing sustainability, stresses that in order to survive and develop people must work with human and inhuman parts of nature, so that they can produce the goods and services they need. The maintenance of a long term society requires not only a secure and continuous supply of raw material, human labor and the technology used directly in the production process, but also a similar source of conditions that make this a viable process, that is, resources (such as clean water), services (such as recycling), as well as health and education for workers and their families, a reasonable level of social stability, rural and urban planned spaces that are sufficiently satisfactory to ensure human well-being.

That way, facing a scenario in which the dominant forms of economic production and distribution are not being able to meet the need of millions of people around the world and are seriously harming the conditions to produce from which these people depend upon, it becomes absolutely necessary that we advance in an effort to find sustainable forms of economy, which can meet everyone’s needs at once, preserving the means and conditions to produce. Education for Sustainability is a way of encouraging this change (HUCKLE, 2014).



What can be seen is that the proposal inspired by the idea of education for sustainability presupposes an alternative and challenging path, but also a new way to see education and sustainability, so that the manner in which society lives today in the world could be changed, as the SDGs demonstrate. The question is: how possible is that? Just like it happens with other matters related to sustainability, this idea seems like a utopia. Reality is that the idea that supports sustainability itself seems to reside in the realm of utopias. The one thing that is unquestionable, however, is that the way we live nowadays is unsustainable.

To Huckle (2014), young people nowadays are being educated for a world that no longer exists. Logic would be, then, to take on a new way of education, compatible to the new world to which we are educating people. That is the promise of education for sustainability: *“to educate students in the tools of sustainability education (...) so as to better examine the assumptions that underpin the information the students learn about and to question the world as they know it”*.

Such as happens to any professional, there is a responsibility that involves the business manager’s job when working. Besides, in times when there is a recognizable need of professionals that can effectively deal with the urgent challenges of sustainability, educating business managers who are conscious of the influence their professional performance may have in the building of a sustainable society becomes more pressing day by day (MOCHIZUKI; FADEEVA, 2011). Bevan says that *“Managing has stopped been seen as a collection of techniques of neutral values; the teaching of management admits its complicity on the creation – and destruction – of values”*. It is a powerful ability that requires, however, a business management education which can rise to that.

In addition to that, this point of view is similar to Silva’s (2014, p. 1) when arguing that the Business Management education is, above all, *“a social practice movement since every management action is inserted in a social and cultural process and is produced historically”*. The author also points out that, in sight of this perspective, the singularity of a business manager’s education is characterized by the need of being incorporated by the social,

political, historical and cultural dimensions. It is from that understanding of Business Management education, outlined beyond technical training, that the reflection proposed by this study can be fully understood.

And here is a converging point between education for sustainability, business management education and the SDGs: the need to “rupture” with the traditional educational system. According to Prando (2014), a rupture with the “traditional” view in which the organization is seen only as an unrestrained source of profit and responsible for the reckless use of natural resources is necessary. For Wu and Shen (2016), that is a priority, not an option.

What is a fact is that, according to Brunstein, Godoy and Silva (2014, p. 2), “*it is undeniable that we live in a historical and social moment that is very favorable to the construction of new fundamentals of business management education*”. Even in face of the uncertainty of the future, concerning how far we can get, these authors strengthen the certainty that “*we have witnessed the strengthening of academic reflection and practical educational experiences for sustainability in classrooms and business courses*”. This work intends, then, to contribute with another step in that direction.

## METHODOLOGY

### **Study Environment: contextualization of UFPB**

UFPB's Campus I is inserted in the Atlantic Forest, surrounded by considerable forest fragments. In this university campus, even the location refers to characteristics related to sustainability. Aware of that, the Institution expresses an interest on initiatives that go in that direction. Therefore, UFPB's Institutional Development Plan (IDP), prevailing from 2014 to 2018, approaches sustainability in the Strategic Goal, which aims the "*generation and dissemination of knowledge that can foster scientific-technological, socio-environmental, economical and cultural development*". Furthermore, the Institutional Values talk about "*respect and commitment with the public's well-being, ethics, transparency, respect to diversity, appreciation of the human-being, environmental, economic and social sustainability*" (UFPB, 2014, p. 14).

Regarding the environmental aspect, on the IDP there was the creation of the Environmental Management Committee, in 2013, whose goal is to manage the entire environmental sector of UFPB in a sustainable way. Among the programs developed by this committee are: I.A program that promotes the correct destination to residue coming from light bulbs; II.A program responsible for selective waste collection on campus, which promotes the correct destination of recyclables; III.A program which aims to raise awareness among freshman students by planting native seedlings and promoting reforestation and thickening among forest fragments; IV.A program which monitors consumption and water waste spots on Campus and V.A program that creates artificial ecological corridors, by making and installing rope bridges to make it easier for tree animals to move from side to side (UFPB, 2014, p. 42-43). Sustainability is still on the IDP from said University in two passages: on the topic of Institutional Development and Academic Organization and on the Statement of Capacity and Financial Sustainability (UFPB, 2014).

Within the social area, on the IDP, some actions that show the Institution's socio-environmental commitment are listed, such as research projects that are seeking to find solutions for the problems and difficulties

on local development and to improve the population's quality of life; extension projects focused on historically relegated social segments; educational and preventive actions, based on social organization and propagation of rights for groups with low incomes.

UFPB's Business Management course is going through a transition process from an old Educational Plan to the current one, which is to be implanted in 2019, as informed by the Structuring Faculty. The new proposal brings as a curricular component a new mandatory subject on Environmental Management and Sustainability, with 60 hours of lessons. In addition to this subject, explicit contents focused on debating themes that involve sustainability are being seen in various curricular components. It is noteworthy that some of these subjects have been offered as elective subjects since before the implanting of this new proposal.

The new Educational Planning of the Business Management course still approaches the sustainability theme in the definition of the profile of a former student, who should "work in an ethical way, based on sustainable values and practices", and in developing competences and abilities, being therefore capable of "proposing and implementing, with ethics and effectiveness, sustainable actions lined up to the organization's strategies".

### **Methodological Approach: procedures of data collection and analysis**

To Marton and Booth (1997), phenomenography is a way to identify, formulate and fight certain types of questions on investigation, a specialization which is particularly destined to be used on matters that are relevant for learning and for understanding in an educational environment, as it is on this work. On phenomenography "*any phenomenon, concept or situation may be experienced in a limited number of ways. The different ways that people feel the experiences are given the name of conceptions*" (AMARO; BRUNSTEIN, 2014, p. 592).

Following the model proposed by Reid, Petocz and Taylor (2011), we invited, personally, in classrooms, students that were on the same year of the Business Management course to participate on this research as interviewees – individually or in groups of between 2 and 6 people. We

strived to follow the same procedures adopted by the previously cited authors. We tried to apply the interviews in different times so that students from both shifts offered by the University – day time and night time, being that the second is one semester longer than the first – could have a chance to participate; they were also distributed along the four years of the course.

According to Bowden (2005), the number of people to be interviewed in a phenomenographic research should be an amount big enough to ensure a number of different ways to see things, but not so many that it would be difficult to manage the data. The author points out that, in practice, most of the phenomenographic studies have between 20 and 30 individuals. Besides that, this number must contain as much representativeness as possible, that is, a variation when it comes to key indicators, such as age, sex, experience etc. (AKERLIND; BOWDEN; GREEN, 2005). Therefore, between the months of October and December of 2015, 26 interviews were conducted, being 13 men and 13 women, being seven individual interviews and six in groups. From the interviewees, six were from the first year (three from each shift), eight from the second (six from the day and two from the night shift), six from the third year (three from each shift) and six from the fourth year (three from each shift). The age of these students varied from 17 to 47 years-old, being that three of them had already finished another graduate course and other three had never had any kind of previous professional experience, including internships.

Also according to Bowden (2005), in order to maximize the power of the investigation results, pilot interviews must take place. So, before following through on the research, with a semi structured script based on other scripts from phenomenographic researches conducted before (AMARO, 2012; LOPES, 2012; REID, PETOCZ, TAYLOR, 2011), a pilot interview was done with second year students who studied on the day shift. The main contribution of this pilot interview was to, from the reproduction of this audio, pick up on opportunities to explore experiences which were lost because of omitting follow-up questions that would stimulate the interviewees to better develop the subject they were discussing.

The duration of interviews varied between 9 (individual) and 43 (group) minutes. All of the interviews were recorded and their audios were fully transcribed, so that the texts resulting from these transcripts could be analyzed from a phenomenographic point of view. The transcriptions were grouped as a way to unify all of the interviews from each year's students, which were separately analyzed. Each interviewee was then identified through code "SxD/Ny", in which "x" is the year the student is on, "D" and "N" refer to their shifts Day or Night and "y" is the number given to the interviewee inside its respective year.

First of all there was a reading of the transcribed interviews from each group of students that aimed to identify, in the experiences they told, different meaning attributed to sustainability. In this step, based on Lopes (2012), the reading had as its line of thinking the following question: "what does this story tell me about what he/she understands by sustainability?" This question was therefore used during readings, so that we could separate the fragments that would be considered key from those which wouldn't.

From the fragments identified on the first step, a spreadsheet was created and organized in a way that, by the side of each passage extracted from the transcript there would be a cell with impressions related to that passage. Gibbins (2008), when summing up the steps of data analysis on a phenomenographic research, points out the need for the fragments of transcriptions to be organized according to the context of the interview from which they were taken, since similar fragments may have different meaning depending on their context. That way, the cells that contained the passages and the impressions related to them were filled with different colors, which corresponded to the question that originated them.

After that, it was important to compare the opinions observed, trying to identify a relation between them. The interview passages were grouped and then regrouped based on the identification of similarities and differences in student's conceptions on sustainability, considering the possibility, at all times, due to the different cell colors, to identify the context from which that passage was obtained, even though there was constant regrouping. The result of this process was a pre-categorization, which was

continuously revised and debated between the authors of this work, until, after alterations and adjustments, a definition of description categories was reached and, consequently, the conceptions. From the most superficial to the deepest and most inclusive, the conceptions that emerged on the empirical field were categorized contemplating three themes: opportunity, resources and sense of collectivity. In this stage, on every new look, we went back to the full transcriptions, in order to identify if there was any other passage that would be important for the definition of the conceptions on sustainability which could maybe have not gotten on the grouped passages. Lastly, the grouped passages were revised to identify citations that would support each of the conceptions found, and the structure of the results was confirmed, which will be presented as follows.

## PRESENTATION AND ANALYSIS OF RESULTS

### **Sustainability Conceptions from Business Management Students**

Student's reports on sustainability actually showed a variety of perspectives on this theme. Regardless of their particular view, sustainability was discussed in the context of experiences – as agents or observers – on daily life, focusing on the formation and the expectations on the professional future of the interviewees.

Phenomenographic analysis revealed three qualitatively different ways through which they conceive sustainability on the group of students that were in their first year of education; two on the participants of the second year; and three on the groups of the next two years (third and fourth). These conceptions were categorized in (1) Opportunity, (2) Resources and (3) Sense of Collectivity, from most superficial to deepest and most inclusive.

On the students from first and from the last two years of the course, the same three conceptions of sustainability were identified – opportunity, resources and sense of collectivity. The students from the second year, however, presented the least number of qualitative different ways of understanding the sustainability phenomenon – resources and sense of collectivity. It is interesting to point out that, in opposition to the number of conceptions, the second was the year of study with the largest number of interviewees. In addition to that, although this group is made of students who are still beginning their studies, both conceptions identified are the deepest among those introduced on this research.

It is still worth stressing that we could notice, on the first year's reports, the presence of students who demonstrate some knowledge on sustainability, but, when encouraged to report their experiences on the theme, present a distancing from practice. It is as if these students were beginners, learners of sustainability and, because of that, needed stimulation for that idea to be matured and become sustainable practices. The report from interviewee S1N1 can be used to illustrate this view:



I didn't live an experience, but my mom is very connected to this subject of sustainability and I also have a friend who enjoys this. So I have always lived around it. They were always commenting on it. I didn't go and participate with them, but I always paid a lot of attention to these moments.

Although the student claims to “pay attention” to the “moments” that involve sustainability, he also puts himself as an observer, not an agent. When defining sustainability, the same impression of a passive and distant conception may be perceived:

Being sustainable is creating your own sustenance. Nature itself: if you leave it untouched, it follows its regular course; it is self-sufficient. That is the way I think.

It is interesting to point out the fact that this kind of speech is not present on the groups of students from second, third and fourth years. Although this occurrence may be related to several different factors, such as personal growth from students that, each year, logically, get older, it may also bring to light a role that the university plays as a catalyst to students' potential. Not only freshman students, but especially them, may have their knowledge on sustainability deepened and their interest awakened, in a way that they may become personally lived experiences. In the descriptions of conceptions, right ahead, it is possible to notice some reports that demonstrate that, for some students, university has played that role. Next, these ideas will be described in a more detailed way, supported by direct quotations taken from the interview transcriptions, which represent each category and the way in which they are related.

The conception (or idea of what sustainability is) Opportunity was identified in the reports of students from groups of the first, third and fourth years, that is, in every year except for the second – group that, actually, had the highest number of interviewees. In this category, students demonstrate to be familiar with sustainability, can report experiences they have had, but see in it, especially when in the context of

business, a mean to something, an opportunity of achieving a benefit or profit. Some reports identified in this conception present sustainability and profit as inseparable ideas, as the fragment below, from a first year student, points out:

One thing I found interesting is that the companies that have the best sustainability practices are those that can connect sustainability to profit, the practices that can make the company more efficient. I think what counts most is having this point of view of knowing how to make a certain sustainable practice and, from that practice, you can obtain other ways to make money. I think it is mainly about making money...because I think that what moves society is money. (S1N3)

Another student, now from the third year, expresses, on the beginning of his speech, a change in the way he sees sustainability, even pointing out that it was a change that happened much more because of his own researches than because of university:

Today I was able to change this perspective I had, but more in things I studied outside. In my head, before, environmental management was only valid when it would bring some benefit. So I would only trade a material that polluted less to one that polluted more, if this material was viable for my product and that generated equity in the final price, in my profit, or was cheaper. But the environment is still not, in my head, a determining factor. But then a second perspective entered, that if I don't pay attention to environmental management today, the companies in the future will have to have a high quality environmental management to stay in market. So today I have this perception that if I don't start looking at this road, my company will not be perpetuated. (S3D3)

It is actually a contradictory speech: on one side, they worry with possible short term future losses of adopting a course of action that may favor the environment; on the other, they worry with possible long term future losses of not adopting a course of action which may favor the environment. That way, whether they are thinking about now or the future, the

determining factor to making the decision, from this conception, is profit. This idea has also been present in fourth year interviewees. To S4D1:

[sustainability] will be important, yes. I believe that with the things that happened on the past few years it has been starting to emerge with an important role, whether it is for the economical development or for the social development. I believe that for us managers it becomes a field where we can operate economically, trying to change sustainability into something economically viable to society to that it can then create fruits and make its contribution.

Even when inserting in the report the matter of the social development, the interviewee conditions the possibility of “create fruits” and “make its contribution” to the transformation of sustainability into “something economically viable” to society. That way, sustainability is seen as a field for the manager to “operate economically”. Even if this perspective is current in ideas presented further ahead, it is surrounded by elements that make it secondary.

What is perceived, in this conception, is that students “read” sustainability as an opportunity, that is, they observe what sustainability “is for” according to their own perceptions instead of actually “what it is”. Sustainability is seen as a way to reduce costs, as a source of profit. That way, students reveal they have a strictly economical view of sustainability. In spite of its relevance, the Economic Dimension of Sustainability (SACHS, 2002) must be taken into consideration, along with the social, cultural, environmental, economical, and political variables, both internal and external, so that an effective sustainability may be guaranteed. There isn’t, however, in the reports of these students, any that may signal the need to search for a balance between that dimension and these variables.

It is observed, therefore, that the students who perceive sustainability as an opportunity, apparently, cannot release themselves from the “traditional” view in which the organization is seen only as an unending source of profit. Prando (2014) reaffirms the need to break with such view, so that the purposes of Education for Sustainability in Business

Management may be reached. The interviews demonstrate the absence of a critical reflection from these students on the companies and the role they perform on society or that signals a mentality change from the student about what a sustainable company should be, which may have as a consequence the perpetuation of an unsustainable behavior. It is also of extreme importance the fact that this has been an idea identified on students who were already on their third and fourth year on the Business Management course. Such a scenery confirms the observation that making professionals with a profile that can help them generate value not only for the stakeholders of the corporations for which they work, but also for society as a whole, may be a challenge to be faced, as pointed out by Jacobi and Beduschi Filho (2014).

The conception Resources is in the reports of all of the groups of students, from first to fourth years, being the one that pops up the most. In this conception, the students approach sustainability focusing on resources – material, environmental, human etc. – and on the need of preservation, maintenance or renovation of these. Students talk, on these reports, about recycling, selective waste collection, reutilization. The fragment below is a good representative of this conception:

I have already done selective waste collection at home. I have done it maybe twice, but I only got some amounts, you know? This decision of mine to collect at home was because of one of my teachers here from University, on my first semester, which was one of the topics that I paid for. And then we worked well this part of the example of *Pão de Açúcar*<sup>1</sup>, which had selective waste collection. I was like: “right, yeah...I got interested”. I think that we watched a movie too, or something. And then this side of me came out. That happened in a subject that had nothing to do with sustainability. (S4D2)

It is interesting to point out that, on S4D2’s report, there was a reference to a professor, still on the first semester of college, who represented what stimulated her experience with sustainability. This makes it clear that

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1 A chain of small supermarkets in Brazil.

this professor, who played a decisive role in her change of behavior towards waste collection, taught a subject “that had nothing to do with sustainability” and, still, made a difference on this student’s behavior.

It is possible to notice, still, in this conception, a preoccupation with the future, with the possibility of running out of resources, as well as the roles of companies in this scenery:

It is the tendency [sustainability], right? It’s hard, right? It is an education, like...you try. I try to do waste collection myself, I live in a building, I separate, but there is nowhere to put it. I try to separate oil not to throw it down the drain. But it turns out that you gather this and when you go... Like in *Bem Mais* [supermarket] there is, they receive it, but not this anymore, so I don’t know where to take it. So it ends up at the garbage, with everything else. In companies, if the company has that, whether because it’s strategic or because they actually believe it, their employees will also have to adapt. Because if everyone doesn’t do it, it will run out faster, right? For everyone. (S3D2)

That way, even in the business perspective, students point out that, although the financial aspect is important for the business manager, what stands out is the concern with the possibility that the resources might end. The focus here is on the consequences of the actions rather than with the financial aspects:

[sustainability is] to know how to better use the means to achieve what is wanted. As well as possible so that we not only have the economy, but where to get things from later. Generations ago you could see people thinking only on the money, on receiving. Today there is a better understanding of where we will get this material. If we don’t think in a sustainable way like many companies didn’t, we will see the raw material being scarcer and then there are no resources left. Either you change careers, or you adapt to this. (S3N3)

Although the elements presented above are repeated in many of the reports, it is possible to notice some variations inside this same idea. Some

of the reports demonstrate a thoughtful reflection about how the way we relate to these resources may affect the world around us in a positive or negative way. The reports signal a less individual way of thinking, in which the world around – community, fauna, flora, etc. – is actually considered. We observe, then, the insertion of a more critical outlook from these students, that is, there is a wider look inside this same conception:

I think the university itself is not doing enough in relation to the animals, because I see that we, the university itself, is more and more taking the place that are the animals' and they have nowhere to go. So they end up coming to our region and we think that they are the ones invading our territory, but no, we are invading theirs, right? This you see a lot, especially with sloths. One time a girl woke up and there was a sloth in her fan. But then whose fault is it? It's not the animal's fault, right? (S3D1)

In each of these fragments, the focus is on the way to face and deal with resources, even when it is about the management universe. It is a perspective that is possible to find in the previous conception, but without being limited by profit, which is what happens in the Opportunity conception.

It is still noticeable that students' reports are focused in environmental issues. This focus, however, does not happen in a deep and wide way. The topics that are approached – recycling, selective waste collection, reuse of materials –, although they have a fundamental role in the sustainability issue, reveal a limited repertoire in concern of the possibilities that emerge from the relationship of businesses with the environmental issues. This scenery reinforces Benfica's (2012) assertion that the concept of sustainability cannot be restrained to the idea of preserving natural resources or to the viability of a development that does not violate the environment, but it must imply a harmonic integration between you, each other and the environment.

Besides that, even if it is possible to observe an evolution in relation to the reports that are part of the interviews in the opportunity conception – such as the preoccupation with the future and the perpetuity of resources

–, here you still cannot identify a deeper critical thinking; hence the need, according to Jacobi and Beduschi Filho (2014), for society to take property of knowledge that may capacitate and stimulate it to participate more actively on debates related to their own destiny. In this way, still according to these authors, the creation of conditions to promote knowledge and bring incentive to critical reflection is imperative.

This conception now is the widest and deepest that was identified and evidenced by students in all four years of the Business Management course. In the conception “Sense of Collectivity”, sustainability is approached from a feeling of belonging to something bigger, in which the resources and their finiteness are considered, but the focus is on the common good, not only for this generation, but to the ones that follow. The idea is that sustainability can only occur under these conditions. The perspective of students who conceive sustainability from the sense of collectivity starts to approach the one defended by Gadotti (2008), in which sustainability is seen under the light of balance, considering what is around – the others and the environment –, of harmony among the different. The following fragment exemplifies the way in which students express this conception:

[sustainability] is any action that happens, whether it is a legal entity or natural person, that happens without harming the location in which it is inserted, the environment, so as to ensure that that situation may be done again and again with their own resources. The big question is this: from a financial point of view, what needs to be in mind is that we may even have to look for the most expensive way to produce, because what is at stake in this situation is something priceless. So people have to be aware, the company, the world leaders, that what is at stake is something that may not be back in a very near future. What is the price you would pay for the world? There is no price. (S3N2)

It is possible to observe, once again, elements that are also present in more superficial conceptions, but this time incremented by others take make it wider and deeper: there is thought on the resources – production,

maintenance –, on the other or in the future, but from a perspective of what is best for everyone, for the quality of life of the “collective”. That way, in spite of the fact that the idea of a sustainability focused on the minimizing of impact is still very present in this conception – when the focus is in the way to deal with damage and not in how to avoid them, and on elements such as “not polluting”, “not throwing trash in the street” –, it is possible to see here a preoccupation with the population’s quality of life; what stands out in students’ reports here is that they are looking out for the collective. It is a deepened way to see things, which communes the idea defended by Huckle (2014) that, for a long term society to be maintained, more than a secure and continuous supply of raw material, human labor and technology for the production process is necessary. To make this process possible, there needs to be resources, services, health and education for workers and their families, a reasonable level of social stability, the provision of urban and rural spaces which are planned harmonically enough to ensure the well-being of humans. It is in the sense of collectivity conception that this concern with the well-being starts being valued.

In this conception, much like in the one before, when it comes to management, the concern with the financial aspects and profit exists, but it is already part of a bigger universe of elements that make it an accessory, not the central focus. We can see, therefore, a repositioning of these students’ outlook, which is intrinsic to sustainability and comes from a greater capacity for critical reflection: what is success to a company? What is profit to a business? Helping students foster these questions about the world in which they live, by presenting new values and views of the world is, actually, according to Springett (2014), one of the proposals of Education for Sustainability. The presence of qualitative indicators that had been neglected so far – since, in an unsustainable business, the evaluation of a company will always be based on quantitative indicators –, such as focusing on quality of life, collectivity, the world around the business etc., demonstrate the forming of a new conception. The perception of social importance in detriment of financial seems to be, by the way, a crucial matter, and it is repeatedly stated in the reports of this category:



[Being a sustainable manager is] being able to contribute to society and organizations, not only financially, but with values and with some contribution to humanity itself. Generating more than economical value for society but also a social contribution from businesses and the people that are part of it. For me that is a contribution that goes beyond financial.  
(S4D1)

You may notice that, up to this conception, students' reports on sustainability were restricted, first, to financial aspects and, then, to environmental aspects. The reports from students in the sense of collectivity conception denotes a way of thinking about sustainability that differentiates from that seen in the previous conceptions, with a more enriched vocabulary, a more critical view and an approach on matters that go beyond financial and environmental, but also focus on the social aspects.

On phenomenography, the categories of description reveal the elements that take part in the perception about the experience with a phenomenon, and the dimensions of variation are the differences between the categories – arising from the variation or concurrency of the aspects perceived about the same phenomenon –, which indicate how the several categories are related to each other. The categories of description and the dimensions of variation are, then, the two analytical representations which form a structure denominated “Result Space” (LOPES, 2012).

The conceptions of sustainability are identified in this result space as hierarchical and inclusive, both logically and empirically. Firstly, because the widest conception of sustainability – sense of collectivity – contains the previous most limited conception – resources – which, at its turn, may contain the conception of sustainability as an opportunity. Secondly, because it is possible to see: a) in the reports that express the sense of collectivity idea, a sustainability discussion that many times have as its foundation the preoccupation with resources; b) in the reports that talk about sustainability in terms of resources, the perception that it may be financially strategic for the business.

**Variation on the sustainability conceptions from Business Management students**

The sustainability conceptions presented in this work were separated in four groups, according to the year in which the interviewed student is enrolled and attending classes. The intention was to establish an outlook on the variation of sustainability conceptions that these students presented as they advanced towards graduation. That is because it is naturally expected that an ascending variation on these conceptions may happen, once the students start to deepen their knowledge on the different areas of Business Management. Picture 1 presents the occurrence of these conceptions in each year of the course:

**Picture 1** Variation on the sustainability conceptions from Business Management students from UFPB

CONCEPTIONS	OCCURRENCE PER YEAR				
	YEAR	YEAR	YEAR	YEAR	ALL
	I	II	III	IV	YEARS
Opportunity	11%	-	8%	3%	5%
Resources	70%	52%	80%	50%	63%
Sense of Collectivity	19%	48%	12%	47%	32%

Source: Research Data

From the data collected on this research, what will be observed is that, although second year students present less limited sustainability conceptions than first year students, this evolution is not constant through the next years. Research revealed that the majority of students who were interviewed conceive sustainability in terms of resources – an intermediate conception – if we consider the entire duration of the course – four years. If we consider only the second year, that’s where we see the lowest variation of different qualitative ways to conceive sustainability, being the two conceptions identified the deepest and not the most superficial.

Considering the analysis of sustainability conceptions of each year alone, it is possible to see, however, a balance between the intermediate and wide conceptions – resources and sense of collectivity, respectively – in years 2 and 4, which is not maintained on year 3. There is, on year three, a discrepancy between those who understand sustainability as resources, if compared to years two and four. It is, moreover, the year in which there is the lowest number of reports that trace back to the sense of collectivity conception, which is the deepest among the three; it matches, in this conception, first year students and correspond to 25% of students on the second and fourth years.

Instead of what is expected, which is a deepening on conception due to the education provided by the course, what is perceived is a bigger approximation on the way to conceive sustainability from students in years one and three and from students in years two and four. There isn't, therefore, any sequencing that may point to a consistent contribution of the university to the construction of sustainability conceptions on the students throughout their education. The lack of an ascending and constant variation signals that the sustainability conceptions of Business Management students of UFPB may be resulted from experiences outside University and inspired by circumstances unrelated to their education, with exceptions.

The fact that these exceptions exist and have become clear by the analysis of interviews demonstrates that it is possible for educators who are part of this University to provoke the students with reflections that can make them see, perceive and experience sustainability from a new outlook and a new perspective. It is a role that belongs to higher education institutions as designers of society: to instigate debate on the topic and to provide consistent information on sustainability in order to make this experience true.

## EDUCATION FOR SUSTAINABILITY AND BUSINESS MANAGEMENT EDUCATION: A DISCUSSION TOWARDS SDGS

An effort was made, throughout this research, during the interviews, to stimulate the students to give us clues about how, in their experience, sustainability was approached up to that moment in the Business Management course, and in what way this topic could be incorporated to their education. Firstly, as mentioned before, it was possible to notice, in some of these students' reports, that there was an influence of the knowledge acquired in the classroom in their behavior towards sustainability.

While for some students sustainability has gone completely “unnoticed”, for others it is present in the education that the Business Management course of UFPB provides its students, even if only superficially. An example of the first situation is in the report of student S4D1, from Year 4:

During my course here in University I think it went unnoticed.

This experience is reinforced by student's S2D5 report, a year two student, but that was unable, by then, to notice a sustainability approach in the course:

I am on my fourth semester here, but up to now I still didn't have any subject that was related to sustainability. So I still don't know how this topic works in the course's curriculum, but the way I see it I can't find anyone dealing with this subject in any of the course's semesters. I think this should be done in a more explicit way, so that it isn't just done, but that it is done in a way in which people can notice it.

It is possible, however, as highlighted, to find reports from students who see sustainability during their education here. It is the case student S4N1 reports:

Besides classes, the teachers make comments. They mix a subject with sustainability, talk about it. There are stories of real businesses they bring and associate it to the subject they are approaching.

We can see, however, in these reports, they suggest the approach is superficial. The reports of S2D4 and S4N2 are examples of that:

Sometimes they even comment on it, but it is very succinct. Something that comes and goes. (S2D4)

We can't lie about it, there is. They do talk about it, even because it is a topic that is on the rise and any way businesses are adopting it. They talk about it, but I don't know...there is something missing. (S4N2)

The fragments transcribed above are from second and fourth year students, but with different perceptions on the approach of sustainability during the course. It becomes inevitable to rise the questioning over what were the factors that determined the difference in the way these two groups of students see this matter. What makes some students more sensitive to sustainability approaches in the classroom than others? This is a question that reflects directly in student's conceptions.

When questioned about how sustainability could be incorporated in the manager's education, student's answers indicated five main directions: the creation of a specific subject that is focused on sustainability; approaching sustainability in an interdisciplinary way; practice as a contribution to theory; the promotion of scientific initiation projects that talk about sustainability; and creating institutional campaigns that raise awareness on sustainability.

The suggestion of creating a specific subject focused on sustainability is justified for many reasons, such as relevance and recent visibility given to the topic. To the ones that defend the approach of sustainability in an interdisciplinary way, one single subject in a given moment of the course would not be enough for this theme to be in fact incorporated to the course. First year students, when defending this point of view, remember that, during middle and high school, before reaching an undergraduate course, the most common way in which sustainability was approached was through rallies or fairs, representing, therefore, seasonal events. By the end

of these events, this topic is again relegated to the background, making it difficult for students to understand the topic. In this sense, they defend that promoting events and lecture is necessary, but that the idea behind sustainability has to be constantly inputted, not only in sporadic events. Therefore, lectures, events and optional subjects would refer back again to the rallies and seasonal events. For them, a cultural change must be made. The report of S2N2 illustrates this idea:

I think that [sustainability] should be inserted continuously inside graduation. For us to have to think of everything that a manager has to do, also through the perspective of sustainability. Just like we follow a number of perspectives to make a certain action inside management, one of the bias that must be used and thought about, is the one of sustainability. I think that's the way to go. Not on a specific subject, but in every subject.

This perception of sustainability as one of the bias to be constantly considered in management communes with recognizing the need for professionals who are capable to deal with the challenges imposed by sustainability (MOCHIZUKI, FADEEVA, 2011; JACOBI, BEDUSCHI FILHO, 2014; BRUNSTEIN *et al.*, 2019). It is not just about knowing, understanding and knowing what it means, but being able to act, being prepared for, at the making of every decision, in any area where they are acting or on any aspect that is being considered, also take into consideration matters that involve sustainability.

For the students, practice must be inserted as a contribution to theory for the incorporation of sustainability in their education, even if that happens in the form of examples brought to the classroom. This need should be considered even when searching for the interdisciplinary studies mentioned earlier. This is what we can perceive when reading S4D3's report:

Practical component. Suddenly taking us to an industry, to a factory and showing examples of negative repercussion of what unsustainable thinking may cause. Maybe documentaries, bringing people, the *Pão de Açúcar* group, which is one we know is concerned about the environment... I think many books won't influence anything. The student has to be in touch

with practice. And that is for specific subjects and also for everything else. I think it is more important for each subject to approach it than one specific class, because with one specific class maybe people would miss it. We know the environment is important, so they don't take the subject seriously.

As seen on this report, students defend the need to have technical visits organized as a way to complement the theoretical classes. It is interesting that many of these students pointed out the opportunity of getting to practice in their own University campus, because of the particular things that characterize it in what concerns sustainability. The fragment from S3D1 demonstrates this perception:

I think that the university, our course department has to look for ways to get in touch with private and public companies, so that we could make visits to these places, observe, and see how production is, whether it is from an industry or something smaller, right? So we know how they deal with this issue of sustainability. Seeing in fact and not just having theoretical classes. Because theory and practice don't always match. I think that here in the university there could be a project that united many courses to deal with sustainability, where each one could contribute, whether in organizing as a manager, or in practice like a biologist.

The creation of institutional campaigns to raise awareness on sustainability reflects the perception that, to incorporate sustainability in the course, there needs to be an involvement from the institution. That is because, as mentioned before, a professor is free to introduce, modify and add content and choose the methodology adopted in class. This would be a big step, but unless this idea becomes a course or university policy, the integration of Education for Sustainability in the curriculum will continue to be a challenge (DOWN, 2006).

It is possible to observe that each of these directions contemplates, in some level, questions brought in the theoretical reference when talking about education for sustainability and Business Management education. Let's bring back, here, the questions raised in the sub topic in which the re-

lations between the categories identified on this research were approached, considering that the most superficial categories presented a limitation in the way they conceived sustainability in relation to the next. The directions suggested by the students represent a correct route and put under perspective their hopes and expectations about what they expect from the professor in classroom. They seem, however, still insufficient to answer the questions that unravel from this research.

Isolated actions are important, but they only represent a palliative when we consider the challenges of incorporating sustainability in education and, mainly, within reach of the Sustainable Development Goals. This incorporation to the curriculum and to the institutions presupposes the use of differentiated strategies and educational practices (CARVALHO; BRUNSTEIN; GODOY, 2014), which exceed the training methods conceived to make managers to act in a world that no longer exists (HUCKLE, 2014; BEVAN, 2014). That way, so that sustainability may be incorporated to the education of UFPB's Business Managers, there is a need, firstly, for a collective effort to achieve that.

It is important to emphasize that the Business Management course at UFPB, because of the location of its campus, disposes of a differentiated structure which may be explored in the search to align education for sustainability and business management education. The possibilities of practices to be developed in the university itself and that may provide the student with a new outlook regarding sustainability, as suggested by the students, are privileged. That is considering, once again, not only aspects connected to environmental management, but aligning sustainability to the most diverse areas of Business Management. As stressed out in the theoretical reference, the academic initiatives that point out to the insertion of sustainability in the course may serve as an inspiration for the future managers that are being educated in our classrooms (JACOBI; BEDUSCHI FILHO, 2014), creating important experiences that, when experienced by the student, may contribute to the establishment of a different position in relation to sustainability (SIPOS, BATTISTI, GRIMM, 2008; SHEPHARD, 2008) and for reaching the SDGs.



## FINAL CONSIDERATIONS AND RECOMMENDATIONS

This worked has aimed, based on principles of education for sustainability and of business management education, by conducting a phenomenographic study, to identify, through the analysis of the sustainability conceptions from students on the Business Management course of UFPB, ways in which you can incorporate sustainability to their education. Three different conceptions on sustainability were identified from the Business Management students along the course: “opportunity”, “resources” and “sense of collectivity”, from the most superficial to the deepest, respectively. The fact is that the prevalence of an intermediate conception – resources – from these students about sustainability (in relation to those identified on the study), and the absence of a deepening on these conceptions even as the students progressed in their Business Management areas towards graduation, represent a troublesome scenery from the perspective of education for sustainability.

Given this scenery, five directions were pointed out by students for incorporating sustainability into the education of managers: the creation of a specific subject that is focused on sustainability; approaching sustainability in an interdisciplinary way; practice as a contribution to theory; the promotion of scientific initiation projects that talk about sustainability; and creating institutional campaigns that raise awareness on sustainability.

This research brings limitations that are inherent to the application of phenomenography which, like any other methodology, makes its own contributions, but also has restrictions. Phenomenography is not attached to any psychological or emotional aspects of the interviewees and is focused on group analysis rather than individual. In that way, in this work, the attention was turned to the collective, which allowed for a holistic description of sustainability conceptions. Other aspects may be discussed in future researches.

From this study it was possible to understand the particular way of thinking about sustainability from Business Management students from UFPB. The choosing of people who are experiencing the same phenome-

non is a requirement from phenomenographic studies and, although adequate to the purposes of this research, may have limited the result space of the phenomenon studied. This limitation makes it possible for new studies to be conducted with other groups of students, in which other ways to experience the phenomenon may arise. The results of these researches will help enlarge the result space on sustainability. Future works may also execute interventions that seek to implement sustainability in undergraduate courses and, therefore, deepen these conceptions. Even the space in which UFPB is inserted created the opportunity for studies in different courses which may highlight the contribution of each of them for the development of sustainability. The conduction of researches outside formal education environment may also demonstrate the role that the context in which studied individuals are part of plays on the conceptions they have on sustainability.

Furthermore, the result of this research shows that there are different understandings on sustainability among Business Management students of UFPB. These students are in contact with professors that also have a diversity of understandings on sustainability. For sustainability to be incorporated in the Business Management student's education and for that to be aligned with the Sustainable Development Goals, it is prudent to seek to understand the conception of both, students and professors, especially in the context of their own subjects, besides the conceptions of the other actors involved in the institution and other learning environments contemplated and promoted by it.

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